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ABSTRACT

This paper focuses on the mental health consequences of the disaster in Armero, Colombia which resulted from a volcanic eruption and mudslide, and highlights the role of the primary care worker in delivering mental health care to disaster victims. Eight characteristics of disasters that are closely related to their psychopathogenetic potential (Quarantelli, 1985) are reviewed as they apply to the Armero disaster: (1) proportion of the involved population; (2) social centrality of the affected population; (3) length of involvement of the affected population in the crisis; (4) rapidity of involvement of the affected population in crisis; (5) predictability of involvement in a crisis; (6) unfamiliarity of the crisis; (7) depth of involvement of the population in the disaster; and (8) the recurrency of involvement. The report suggests that the basic mental health activities of the primary care worker must be adapted to specific disaster situations and skills should include knowledge of disaster behavior, skills in the use of different treatment modalities, understanding of the disaster aid system, and ability to utilize available family and community resources. The paper concludes that adequate and comprehensive implementation and evaluation of disaster relief programs should go beyond survival rates and physical morbidity and should focus on the emotional and behavioral aspects of victims' adjustment, where the primary care worker can make a significant contribution. (NB)

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PRIMARY MENTAL HEALTH CARE IN DISASTERS: ARMERO, COLOMBIA

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I. Introduction

I became involved with the Armero disaster because, as a consultant for the Pan American Health Organization to the Colombian Ministry of Health, I had assisted them in the design of a national primary mental health care plan that was to be piloted in Armero. Although mental health consequences of disasters have been the subject of controversial reports (6), the Armero disaster seems to have a high potential for producing significant psychiatric and psychosocial problems among its victims. It also highlights the role of the primary care worker in delivering mental health care to disaster victims, a resource that needs to be further explored in both developed and developing countries. I will discuss these two areas in this presentation.

II. The Disaster and Its Psychological Consequences

For the sake of brevity, I will assume you all remember the Armero disaster, and will focus on the specific issues related to its mental health consequences. Quarantelli (9) describes eight characteristics of disasters that are closely related to their psychopathogenetic potential, and I would like to briefly review each of them as they apply to the Armero disaster.

1. PROPORTION OF THE INVOLVED POPULATION

The higher the proportion of the population involved, the more likely the disaster will produce mental health problems. An entire town of 30,000 people has disappeared with estimated 24,000 deaths, that is, around 80% of the population has perished in the tragedy. The population in neighboring towns has also

been affected by the disaster, not only by losing relatives and friends but also by participating in rescue operations, by assimilating the victims that have been relocated into their area, and by fearing subsequent eruptions.

2. SOCIAL CENTRALITY OF THE AFFECTED POPULATION

In the post-impact period, social support to victims is smaller if they belong to peripheral sections of the community. In the Armero disaster, the mudslide, as it descended by the canyon, completely devastated the downtown area, where the most affluent segments of the population lived. Contrary to the pattern usually seen in developing countries, the individuals who survived lived in the peripheral areas of the city, and were mostly unskilled peasants, with limited education and resources for alternative gainful employment.

3. THE LENGTH OF INVOLVEMENT OF THE AFFECTED POPULATION IN THE CRISIS

The relationship between length of involvement and mental health consequences seems to be complex, but in Armero the special combination of events has been particularly detrimental.

The phase of warning lasted about a year, as in December 1984 there was the first indication of unequivocal volcanic activity. Nonetheless, for various reasons, the population was never prepared for the tragedy. On the other hand, the threat continues now for the survivors, with frequent alerts due to the very high probability of a new eruption as indicated by the very visible smoke, sulfuric odor and ashes. The combination of these pre- and post-impact factors seems

likely to increase the risk for emotional problems.

4. THE RAPIDITY OF INVOLVEMENT OF THE AFFECTED POPULATION IN CRISIS

The more slowly the population adjusts to the crisis, the less severe the psychological consequences are likely to be. Even though two hours lapsed between the volcanic eruption and the destruction of the town, the population was surprised by the noise of the mudslide that was heard a few minutes before 75 million tons of mud devastated Armero, with no possibility for protective action.

5. THE PREDICTABILITY OF INVOLVEMENT IN A CRISIS

When a disaster is not, or cannot be, predicted, its psychological consequences tend to increase. In Armero, even though a disaster was anticipated, no more than flooding was expected, and the population had never incorporated to its lifestyle the necessary precautions for its effective protection.

6. THE UNFAMILIARITY OF THE CRISIS

High unfamiliarity with a disaster is likely to be psychologically disturbing. The terror and horror lived in the disaster were totally new situations for the population, and exposed both adults and children to horrible scenes. To this date, these scenes can be seen on the streets of the destroyed town by passersby or relatives of deceased victims.

7. THE DEPTH OF INVOLVEMENT OF THE POPULATION IN THE DISASTER

Emotional consequences of disasters seem to be inversely related to the proportion of what is lost, and not to

the absolute loss; that is, a slum dweller may be more easily relocated to a camp than a middle-class person. The Armero disaster however was an absolute event. Everything was lost. For many survivors, not a single photograph or memento of their entire families now exist. Crosses have been placed where the houses of the deceased were supposedly located, in an attempt to create a symbolic cemetery for the bodies that have disappeared.

8. THE RECURRENCY OF INVOLVEMENT

The last volcanic eruption occurred 150 years ago, so that a disaster subculture, that could have had a protective role for mental health problems, was never developed by the Armero population.

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Victims are now located in Ibague, capital of the State of Tolima, and in the disaster area north of the state, totaling 2,184 of which half are between ages 15 and 49 (Table 1). Medical attention is deficient, as 50% of the shelters in Ibague and 78% of the shelters in the north have only sporadic medical services or no medical attention at all (Table 2). Living conditions in the tents are precarious, with a variety of problems: water supply, waste disposal, sewage, insects, safety, lack of privacy and uncertainty about housing and employment. These post-impact conditions contribute significantly to difficulties in the psychosocial adjustment of the victims (8).

Furthermore, the disaster has significantly reduced the specialized mental health care resources, as it destroyed the

only psychiatric hospital in the region that had a 90-bed inpatient service, representing 85% of the psychiatric beds in the state, and a large outpatient department with 5,000 yearly visits. Seven mental health professionals and 27 auxiliary workers have perished in the tragedy.

The likely increase in the psychiatric and psychosocial morbidity among the disaster victims and the decrease in the specialized mental health resources emphasize "ipso facto" the role of the general health sector, and particularly of the primary health care worker, in providing mental health care, and creates an excellent opportunity for studying primary mental health care for disaster victims.

III. The Role of the Primary Care Worker

Disasters are frequent in developing countries, with significant human and property losses (7). Up to 1975, 17 disasters with more than 25,000 casualities each were responsible for an estimated 4.5 million deaths, but only two ocurred in developed countries, corresponding to 5% of the casualities (Table 3). In developing countries, specialized mental health resources are already insufficient to manage patients seen in routine clinical care (4), and become blatantly inadequate in a disaster situation, particularly when, by the disaster characteristics, the psychosocial morbidity is likely to increase.

Primary care is the main strategy for attaining the goal of "health for all by the year 2,000", but in developing countries

little emphasis has been paid to the role of the primary care worker in providing mental health care to disaster victims. In developing countries, the primary care worker is usually a person with limited education and training, selected by the local community, or with the community's agreement, to perform basic health actions. A recent WHO collaborative study in seven developing countries has shown that, in routine clinical care, these primary care workers can be trained to effectively identify, manage and refer patients with mental health problems (1,5,10).

The basic mental health activities of the primary care worker must be adapted to specific disaster situations, that should include: (i) knowledge of disaster behavior (e.g. crisis and stress, loss and mourning, coping and adaptation); (ii) skills in the use of different treatment modalities (e.g. crisis counselling, grouptherapy, short-term focused therapy and psychopharmacology), (iii) understanding of the disaster aid system (e.g. shelter, medical care, home repairs and financial assistance), and (iv) ability to utilize available family and community resources (2).

To meet the various biopsychosocial problems of the victims through the primary level of care, activities should be developed in the areas of training, education, research and planning.

Training and educational activities for the primary care worker in the mental health care of disaster victims is a new area, and thus involves the design, implementation and evaluation

of appropriate contents and specific methodologies.

From a research perspective, we are now carrying out an investigation funded by the Johns Hopkins School of Medicine and co-sponsored by the University Javeriana in Bogota, and the Colombian Ministry of Health to: (i) ascertain the frequency and kinds of psychiatric morbidity seen in primary care clinics on the disaster area; and (ii) assess the primary care workers' capability for adequately recognizing, managing and referring patients with emotional problems to the mental health sector.

From a planning viewpoint, the role of the mental health sector in the comprehensive care of disaster victims should be of training, education and consultation to the primary care workers. A national or regional mental health team specialized in disasters should have the capability and responsibility for training the mental health team in the disaster area in providing training and continuing support to the front line primary care workers, who will then provide direct mental health care to victims, families and affected communities. The local mental health team will remain available for evaluation and/or treatment of referred patients whose psychiatric problems are too complex to be handled at the primary care level.

IV. Conclusion

Disasters such as the Armero mudslide produce a process of "selection of the fittest" and it can be said that, besides those relatively few survivors who were left with significant injuries and handicaps, most are in a better state of physical health than

the population prior to the catastrophe. This may happen because those individuals more vulnerable to diseases and disabilities- as the very young, the elderly and those previously ill or disabled - are also the ones less likely to survive the impact (3). Nonetheless, the psychological and social problems of survivors are significant, with long-term consequences, perhaps affecting more than one generation. Increased alcohol consumption, free-floating anxiety, post-traumatic symptoms, marital problems, and depression were noted during my last visit to the camps this past April. Thus, if the maintenance of life is the first priority in the aftermath of a disaster, the maintenance of the quality of life is the main challenge in the medium- and long-term range. It seems, however, that as the notoriety of disasters and the national and international aid decrease, emotional problems tend to increase, creating an imbalance between mental health needs and resources for adequate service provision.

Adequate and comprehensive implementation and evaluation of disaster relief programs should go beyond survival rates and physical morbidity, and focus on the emotional and behavioral aspects of victims' medium- and long-term adjustment, where the primary care worker can make a significant contribution.

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